

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: MULLER, Alexandre; MULLER, William

SERIAL NO.: (International Serial No. PCT/FR03/001862)

FILED: Herewith (International Filing Date: 18 June 2003)

TITLE: EQUIPMENT FOR EXTRACTING ROOT POST PROSTHETIC ELEMENTS OR IMPLANTS

Preliminary Amendment: CLAIM AMENDMENTS

1. (Currently amended) Instrumentation for extracting prosthetic elements having a root post or for extracting implants, ~~made of an instrument~~ comprising:

two levers (~~1A, 1B~~) connected to each other, in a rotating and non-crossing manner, by ~~means of an articulation (2)~~, each of these levers thus comprising lever being comprised of a one handle (~~3A, 3B~~) and one an extracting arm (~~4A, 4B~~) extending on either side of the articulation (2), so that wherein bringing together the two handles (~~3A, 3B~~) causes the two extracting arms (~~4A, 4B~~) to separate, characterized in that the wherein ends (~~4A, 4B~~) of the extracting arms (~~4A, 4B~~) of this ~~instrument~~ are curved so as to form an angle with the a remaining part of ~~these the~~ extracting arms, and in that they comprise wherein the ends are comprised of extracting tips (~~5A, 5B~~) in the form of as clamps ~~designed to be able to be positioned~~ , positionable in a detachable way and with a rotational capacity, at the curved ends (~~4A', 4B'~~) of the extracting arms (~~4A, 4B~~).

2. (Currently amended) Instrumentation according to claim 1, ~~characterized in that it comprises several~~ further comprising: a plurality of pairs of extracting clamps (~~5~~) having different thicknesses and having notches (~~5b~~) corresponding to different diameters of prosthetic element posts (~~T~~).

3. (Currently amended) Instrumentation according to claim 1, ~~characterized in that the instrument comprises~~ further comprising: a plurality of mechanisms (8,9) for subjecting the extracting arms (4A, 4B) to the action of progressive separating forces.

4. (Currently amended) Instrumentation according to ~~one of the claims 1 or 2,~~ characterized in that the instrument comprises Claim 1, further comprising: a mechanism for the automatic return of the extracting arms into a position close together.

5. (Currently amended) Instrumentation according to claim 1, ~~characterized in that it consists of~~ further comprising: at least one gauge (11) comprised of a flat bracket comprising a grasping part or sleeve (11B) and a working part ~~whose~~ having an end is formed by comprised of a calibrating fork (11a), ~~the~~ a thickness of this said calibrating fork corresponding to ~~the~~ thickness of the pair of clamps (5A, 5B) of the extracting arms (4A, 4B) when ~~they~~ the arms are in a position close together; ~~preferably, this instrumentation comprises several wherein said~~ gauges (11) having have calibrating forks (11a) corresponding to different diameters of the prosthetic element posts (T) and having different sizes of extracting clamps (5).

6. (Currently amended) Instrumentation according to ~~one of the claims 1 or 2,~~ characterized in that the Claim 1, wherein said clamps (5) have a planar support surface (5a) oriented to ~~the~~ an outside and defining a notch (5b).

7. (Currently amended) Instrumentation according to claim 6, ~~characterized in that the~~ wherein said notch (5b) ~~of the extracting clamps (5)~~ has a decreasing width in ~~the~~ a direction to ~~the~~ a bottom of the notch, ~~this said~~ said notch being ~~able to have the~~ in a shape of a V or a spacing that decreases gradually.

8. (Currently amended) Instrumentation according to ~~one of the claims 1, 2, 6 or 7,~~
~~characterized in that~~ Claim 1, wherein the extracting clamps ~~(5A, 5B)~~ comprise a shaft or cylindrical
rod ~~(6)~~, and ~~in that~~ wherein the bent ends ~~(4A', 4B')~~ of the extracting arms ~~(4A, 4B)~~ are equipped
~~with~~ comprised of a traversing bore ~~(7)~~ that permits ~~permitting~~ the detachable and rotatable mounting
of the clamps in the extension of the ends.

9. (Currently amended) Instrumentation according to claim 3, ~~characterized in that the~~
wherein said mechanisms for subjecting the extracting arms ~~(4A, 4B)~~ to the progressive removal
forces ~~are comprised of~~ comprise a flexible and compressible stop (8) affixed to one (3A) of the
handles, relative to ~~the~~ an internal surface of the other handle ~~(3B)~~, ~~in a manner~~ such that when the
handles are brought together, ~~this~~ said elastic stop is compressed ~~between them~~ therebetween.

10. (Currently amended) Instrumentation according to claim 9, ~~characterized in that it~~
~~comprises~~ further comprising: a mechanism (9) for regulating ~~the~~ support of the elastic stop (8).

11. (Currently amended) Instrumentation according to claim 4, ~~characterized in that the~~
wherein said mechanism for automatic return of the extracting arms ~~(4A, 4B)~~ to a close together
position is comprised of a leaf spring ~~(10)~~ interposed between the handles ~~(3A, 3B)~~ of the instrument
~~and,~~ tending to separate ~~them~~ said handles.